UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

Mr. David W. Schnare
Director
Environmental Law Center
American Tradition Institute
9033 Brook Ford Road
Burke, Virginia 22015

JUL 11 2013

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Re: Freedom of Information No. EPA-HQ-2013-006650

Dear Mr. Schnare:

Enclosed please find information related to your May 21, 2013, request under the Freedom of Information Act (FOIA). Under the FOIA, you requested information about coal-fired power plants in Colorado, coal-fired power plant emissions, and research by the EPA or the EPA grantees into the impact of particulate matter on human health. The EPA's Office of Air Quality, Planning, and Standards, in coordination with the Office of Atmospheric Programs, Office of Research and Development, and the EPA Region 8 has concluded its search for records responsive to your FOIA and is providing the requested records for the eight requests you enumerated in your letter.

(a) The names, owners, EPA identifying numbers, and facility address/location of each coal-fired power plant in the State of Colorado;

(b) For each facility, the pollution control equipment used to control air emissions and water discharges from the facility;

Enclosed is a copy of the records which are responsive to your requests. Please refer to Attachments A and B. Please be advised that the data records you requested on facility processes are not in EPA's possession but may be available from the Colorado Department of Public Health & Environment. You may wish to contact CDPHE directly.

(c) The actual chemical constituents emitted into the air by the facility and the amount of each for the past seven years.

The EPA records include several sources of air emissions data from coal-fired power plants, much of which is available publicly. These sources are the National Emissions Inventory (NEI), the Toxics Release Inventory (TRI), and the Air Markets Program Data (AMPD). Much of these data are available as annual totals. For the NEI and TRI Program, data for 2012 are not yet available. The table below provides a list of the available data sources for these years, and we have additionally noted 2005 data availability. Most of this information is available on EPA websites and noted below. In addition, we are providing you with data files for those cases where the data are not available online; the names of the files are noted in the chart below. Please note that the 2011 NEI data are anticipated to be released publicly in summer 2013 and the TRI Program will begin to release 2012 Preliminary Data by the end of July 2013.

Data Source	Year(s)	Website or data file name
National Emissions Inventory	2005	http://www.epa.gov/ttn/chief/net/2005inventory.html. See section "Point Sector Data" link for "Point Facility Summary"
	2006 - 2007	Do not exist (data not submitted by Colorado)
	2008	http://www.epa.gov/ttn/chief/net/2008inventory.html See section "Additional Summary Data" link under "Facility Emissions Summaries"
	2009	See Attachment E Colorado_2009NEI_submitted_facility_sum.xlsx
	2010	See Attachment E Colorado_2010NEI_submitted_facility_sum.xlsx
	2011	See Attachment E Colorado_2011NEI_submitted_facility_sum.xlsx
Toxics Release Inventory	2006-2011	http://www.epa.gov/tri/tridata/index.html, http://iaspub.epa.gov/triexplorer/tri_release.chemical, http://www.epa.gov/enviro/facts/tri/search.html
	2012	Preliminary TRI data for 2012 are planned to be released by the end of July 2013 Check http://www.epa.gov/tri/ for updates.
Air Markets Program Data	2006 through 2012 (final) and 2013 (partial and preliminary)	http://ampd.epa.gov/ampd/

(d) A copy of the current Title V permit for each facility

Please see Attachments A, C, and D.

(e) Records indicating the chemical constituents of air emissions from coal-fired power plants

An accounting of the chemical constituents of air emissions from coal-fired power plants can be found in the data files and websites cited in responses to item (c). In addition, two EPA websites will provide emissions data for electric generating units (EGUs), including speciated particulate matter (PM). All of this information is publicly available and it can be found in both the docket for the Mercury and Air Toxics Standard (MATS) and the Air Toxics Website.

The Air Toxics Standards for Utilities website, available at <http://www.epa.gov/ttn/atw/utility/utilitypg.html>, has individual metals, filterable fine particles (PM 2.5), filterable PM, condensable organic PM, and condensable inorganic (aqueous) PM values in the 'Tool_tblISOemissions' folder of the EGU ICR Part III file in the MATS ICR Data section. When one remembers that all of the condensable PM is smaller than 2.5, then the PM 2.5 speciation we have consists of 3 categories: filterable, condensable organic and condensable inorganic.

In addition, records relating to individual source reporting of emissions in response to our 2010 Information Collection Request can be found in Docket No. EPA-HQ-OAR-2009-0234. The MATS website <http://www.epa.gov/ttn/atw/utility/utilitypg.html> includes spreadsheets about air emissions form coal-fired power plants.

(f) Records indicating the chemical make-up of PM2.5 emitted from coal-fired power plants.

The EPA compiles and maintains the online "SPECIATE" database, which includes PM2.5 constituents (called speciation data) from coal-fired power plants. The database can be accessed at http://www.epa.gov/ttn/chief/software/speciate/index.html.

There are two ways to access the data, as follows:

1) Use the "Browse online" link. To find relevant PM2.5 speciation data:
    a. Click the "Search" link provided at the left hand side.
        i. Select "Particulate Matter (PM) radio button
        ii. Enter keywords such as "Coal" and "Electric"
        iii. Click "Search"
    b. Alternatively, click "Browse" at the left hand side
        i. Click link for "Particulate Matter (PM) speciation profiles by source category"
        ii. Click link for relevant source categories. Examples include:
            1. Coal Combustion
            2. Coal-Fired Power Plant
            3. Coal-Fired Power Plant/esp Composite
            4. Coal-Fired Power Utility Fly Ash (Srm 1633)
            5. Draft SubBituminousCombustion – Composite
            6. Draft Subbituminous Combustion – Simplified
            7. External Combustion Boiler – Coal-Fired Composite

(g) Records describing the name of every research project involving human exposures to PM2.5 and the chemical make-up of PM2.5 used in that human testing, whether conducted by EPA or under an EPA grant; and the adverse health endpoints observed in the human subjects resulting from the exposure.

Below is a table of STAR grants awarded by EPA's Office of Research and Development's Center for Environmental Research related to particulate matter research.

Extramural Science to Achieve Results (STAR)- funded Projects

As of July 1, 2013

Name of Project	Primary Investigator	Link
Southern California Particle Center and Supersite Project: Controlled Human Exposure Studies with Concentrated PM	Froines, John (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/6985/report/F
Rochester Particulate Matter Center Project: Clinical Studies of Ultrafine Particle Exposure in Susceptible Human Subjects	Oberdorster, Gunter (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/5581/report/F
Harvard Center for Ambient Particle Health Effects Project: Assessing Deposition of Ambient Particles in the Lung	Koutrakis, Petros (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/1764/report/F
Human Health Effects of Exposure to Ultrafine Particles	Frampton, Mark	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/220/report/F
Acute Cardiopulmonary Responses to Fine Particulate Pollution and Copollutant Oxidant Gases in Los Angeles	Gong, Henry	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/998/report/F
Air Pollution and Human Vascular Dysfunction: Mechanism and Mediators	Brook, Robert	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/6123/report/F
Rochester PM Center Project: Human Clinical Studies of Concentrated Ambient Ultrafine and Fine Particles	Oberdorster, Gunter (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/7787/report/2011
Harvard Particle Center Project: Cardiovascular Toxicity of Concentrated Ambient Fine, Ultrafine and Coarse Particles in Controlled Human Exposures	Koutrakis, Petros (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/8704/report/F

Great Lakes Air Center for Integrative Environmental Research (GLACIER) Project: Cardiometabolic Effects of Exposure to Differing Mixtures and Concentrations of PM2.5 in Obese and Lean Adults	Harkema, Jack (Center Director)	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/9295/report/2012
Health Effects Institute: General Listing of Reports Related to Particulate Matter	Greenbaum, Dan	http://pubs.healtheffects.org/topics.php?topic=8
Health Effects Institute: Specific Reports 112, 118, 126	Greenbaum, Dan	http://pubs.healtheffects.org/view.php?id=104 http://pubs.healtheffects.org/view.php?id=95 http://pubs.healtheffects.org/view.php?id=101

(h) Records describing how a citizen could determine the health consequences of air emissions from a coal-fired power plant, using software available to and understandable by citizens.

The EPA's BenMAP computer modeling program is a tool for estimating the health impacts, and associated economic values, associated with changes in ambient air pollution. This tool has been used widely and peer-reviewed extensively. In April 2013, the EPA released the Community Edition of the software; this version is powerful enough to perform a comprehensive benefits analysis but simple enough for non-technical users to estimate benefits after a short tutorial. Analysts have relied upon BenMAP to estimate the health impacts from air quality changes at the city and regional scale. BenMAP includes nearly all of the information users would need to start performing a benefits analysis; advanced and non-U.S. analyses can customize the program to address their policy question. Because BenMAP is based on a GIS, the results can be mapped for ease of presentation. Please access BenMap on the web at http://www.epa.gov/airquality/benmap/index.html

By using BenMap, a citizen can evaluate the health consequences of air emissions from coal-fired power plants. Specifically, the user can run health impact functions, which relate a change in the concentration of a pollutant with a change in the incidence of a health endpoint. This link http://www.epa.gov/airquality/benmap/reduced.html leads to a "reduced-form" approach for estimating the number, and economic value, of avoided fine particle-related human health impacts related to emission reductions from specific source categories. These "benefit per-ton" values were derived using a combination of modeled air quality data, concentration-response relationships from the epidemiological literature and dollar value estimates from the economics literature.

You may appeal this response to the National Freedom of Information Officer, U.S. EPA, FOIA and Privacy Branch, 1200 Pennsylvania Avenue, N.W. (2822T), Washington, D.C. 20460 (U.S. Postal Service Only), Fax: (202) 566-2147, E-mail: hq.foia@epa.gov. Only items mailed through the United States Postal Service may be delivered to 1200 Pennsylvania Avenue, N.W. If you are submitting your appeal via hand delivery, courier service or overnight delivery, you must address your correspondence to 1301 Constitution Avenue, NW. Room 6416J, Washington, D.C. 20001. Your appeal must be made in

writing, and it must be submitted no later than 30 calendar days from the date of this letter. The EPA will not consider appeals received after the 30 calendar day limit. The appeal letter should include the FOIA request number listed above. For quickest possible handling, the appeal letter and its envelope should be marked "Freedom of Information Act Appeal."

Again, thank you for your request. I appreciate the opportunity to be of service and trust the information provided is helpful to you.

Sincerely,

Jennifer E. Edmonds

Stephen D. Page
Director
Office of Air Quality Planning
and Standards